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COLLARD & ROE, P.C. 1077 NORTHERN BOULEVARD ROSLYN, NY 11576			EXAMINER YENTRAPATI, AVINASH	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/593,863	<b>Applicant(s)</b> HOFFMANN, ANDRE	
	<b>Examiner</b> AVINASH YENTRAPATI	<b>Art Unit</b> 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 5/24/2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 3-16, 20-40, 42-47, 50-55, 58, 59, 61-65, 68-76, 86-91 and 95-98 is/are pending in the application.
- 4a) Of the above claim(s) 77-85 and 92-94 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3-16, 20-40, 42-47, 50-55, 58, 59, 61-65, 68-76, 86-91 and 95-98 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 9/22/2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

1. This Office Action is responsive to communication filed on 5/24/2010. Claims 10, 15, 31 and 77 have been amended to correct clerical errors. Claim 94 has been amended to depend from claim 93.
2. Applicant has amended the claims to overcome the 35 U.S.C. 112 first paragraph rejections. The rejection is being withdrawn.

### ***Election/Restrictions***

3. Claims 77-85 and 92-93 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected group II, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 5/24/2010.
4. Examiner would like to bring to attention the election/restriction requirement mailed out 5/11/2010 required the applicant to choose between Group 1 (3-16, 20-40, 42-47, 50-55, 58-59, 61-65, 68-76, 86-91 and 94-98) and Group II (77-85, 92-93). Applicant elected Group I (See Remarks Page 43), however applicant failed to withdraw or cancel the non-elected Group II from consideration. Furthermore, claim 94 has been amended to depend from claim 93, therefore claim 94 should also be withdrawn.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 3-10, 12, 15-16, 20-21, 23, 25-26, 28-29, 34-40, 42-44, 46-47, 50-55, 58-59, 61-62, 68-71, 73-75, 86, 89 and 91 are rejected under 35 U.S.C. 102(b) as being anticipated by Hillhouse (US Publication No. 2004/0230810).

**Referring to claim 86:**

Hillhouse discloses gathering first information with a first device about a first feature of at least a portion of at least one first member selected from the group consisting of a first tooth, a first dentition, a first living body, a first dead body, a first person, and a first object (See Paragraph [0033]: "first feature set information is generally comprised of spatially dependent biometric features associated with a fingerprint" - fingerprint is portion of a body);

Hillhouse discloses storing the first information gathered as first data (See Paragraph [0034]: "biometric templates may be accomplished in advance and retrievably stored");

Hillhouse discloses gathering second information using a second device about the first feather of at least a portion of at least one second member selected from the group consisting of a second tooth, a second dentition, a second living body, a second dead body, a second person, and a second object (See Paragraph [0034]: "first feature sets for each of the members [read as second member] of the plurality of enrollment biometric templates" - the biometric sample is read as the first member, and any one of the enrolled templates is read as the second member);

Hillhouse discloses comparing the second information with the first data to determine whether the second information matches or approximately matches the first data to determine whether the second member is the first member or is not the first member (See Paragraph [0034]: "comparisons of first feature set information derived from a received biometric sample [first member] and the plurality of enrollment biometric templates");

Hillhouse discloses wherein the first feature is at least a portion of at least one characteristics selected from the group consisting of a form, a shape, a template etc. (See Fig 1A-125: fingerprint template);

Hillhouse discloses wherein the first device and the second device are the same device or are different devices (See Fig 2A-95: biometric scanner, which is the same device used to acquire templates for first and second members);

The limitation wherein the first device and the second device work according to the same principle or work according to different principles always holds true.

**Referring to claim 3, according to claim 86:**

Claim 3 is directed to first tooth and first dentition, which is not the choice chosen in the analysis of claim 86.

**Referring to claim 4, according to claim 86:**

Hillhouse discloses wherein the first feature is carried by or affixed to the first member or is shown and wherein the first feature is carried by or affixed to the second member or is shown (a finger of a person is carried by said person; See Fig 2A);

**Referring to claim 5, according to claim 86:**

Hillhouse discloses wherein at least one of the first information and the second information is gathered at a selected distance from the location of at least one of the first device and the second device (See Fig 2A: the fingerprint is scanned by the scanner at a pre-selected distance of zero);

Hillhouse discloses wherein the first feature is magnified as a part of the gathering from the selected distance (See Fig 1A-125: fingerprint is magnified).

**Referring to claim 6, according to claim 86:**

Hillhouse discloses wherein the first member is a person or a person comprises the first member and wherein the second member is a person or a second person comprises the second member (See Fig 2A-205: human hand);

Hillhouse discloses wherein the first information and the second information are gathered in a specific or prescribed space or in an area or localized (See Fig 2A-95: fingerprint is gathered in a prescribed space).

**Referring to claim 7, according to claim 86:**

Hillhouse discloses wherein the first feature is a natural feature (See Fig 2A: fingerprint is a natural feature).

**Referring to claim 8, according to claim 86:**

Hillhouse discloses wherein the first feature is artificially generated or is processed (See Fig 2A: fingerprint is processed by the computer system).

**Referring to claim 9, according to claim 86:**

Hillhouse discloses wherein the first feature can be recognized with the naked eye or cannot be seen with the naked eye (See Fig 1A: fingerprint can be seen by naked eye or cannot be seen by naked by, based on eyesight of said eye).

**Referring to claim 10, according to claim 86:**

Hillhouse discloses gathering extra information about an extra feature of the first member (See Paragraph [0033]: "second feature set information [read as extra information] is generally comprised of pattern dependent biometric features"; See Fig 3-318: 2<sup>nd</sup> feature set info is derived from sample [first member]);

Hillhouse discloses storing the extra information as extra data (See Fig 1-25: storage – second feature set information is derived, and has to be stored at least temporarily while comparing to the sample);

Hillhouse discloses fathering second extra information about the extra feature of the second member (See Fig 3-316: 2nd feature set info derived from most relevant enrollment template [second member]).

Hillhouse discloses comparing the second extra information with the extra data to determine whether the second extra information matches or approximately matches the extra data to confirm whether the second member is the first member is not the first member (See Fig 3-320: perform one-to-one matching of 2nd feature set info of sample [first member] and enrollment template [second member]);

Hillhouse discloses wherein the extra feature is selected from the group consisting of an identifier, a code, and feature information (See Paragraph [0033]: "second feature set information");

Hillhouse discloses wherein the extra feature is connected with the first member and is connected with the second member (finger is connected to the first person and second person).

**Referring to claim 12, according to claim 86:**

Hillhouse discloses wherein the first devices comprises at least one item selected from the group consisting of a camera, a camera system, a receiver, a sensor, a detector etc. (See Fig 2A: fingerprint scanner [read as sensor]).

**Referring to claim 15, according to claim 86:**

Hillhouse discloses wherein the first information, the second information, or both the first information and the second information are gathered directly from the first member, directly from the second member, or directly from both the first member and the second member are gathered from a negative of the first member, from a negative of the second member, or from both the negative of the first member and a negative of the second member or are gathered from a copy of the first member, from a copy of the second member, or from both a copy of the first member and a copy of the second member (See Fig 2A: fingerprint gathered directly from member).

**Referring to claim 16, according to claim 86:**

Claim 16 is directed to the case when the first device and the second device are different; therefore analysis for claim 16 is not necessary. The case when the first device and second device are the same is selected in the analysis for claim 86.

**Referring to claim 20, according to claim 86:**



Claim 20 is directed to the case when the first device and the second device are different; therefore analysis for claim 20 is not necessary. The case when the first device and second device are the same is selected in the analysis for claim 86.

**Referring to claim 21, according to claim 86:**

See analysis for claim 10. The conventional information is read as extra information in claim 10 that is used to confirm the match.

**Referring to claim 23, according to claim 88:**

Color characteristic is in the alternative in claim 88. Analysis not required.

**Referring to claim 25, according to claim 86:**

Hillhouse discloses wherein the first device comprises at least one device part selected from the group consisting of a color measuring instrument, a sensor, a detector etc. (See Fig 2A: fingerprint scanner [read as sensor]).

**Referring to claim 26, according to claim 86:**

Claim 26 is directed to the case of dental features; therefore analysis for claim 26 is not necessary.

**Referring to claim 28, according to claim 86:**

Hillhouse discloses choosing a tolerance range based on a device safety standard requirement (See Paragraph [0036]: “security settings are envisioned to allow an acceptable tolerance range”; See Paragraph [0037]: “significant match generally includes a narrower tolerance range”);

Hillhouse discloses updating the first data with the second information if the second information lies within the tolerance range (See Paragraph [0061]: “if the most

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favorable comparison is successful within the acceptable tolerance range, identified biometric template undergoes further processing" – update of a match if similarity is within tolerance range).

**Referring to claim 29, according to claim 86:**

Hillhouse discloses finding the first data, in order to compare the second information with the first data, using at least part of the second information in a search program (See Paragraph [0034]: "comparisons of first feature set information [first data] derived [read as finding] from a received biometric sample [first member] and the plurality of enrollment biometric templates");

**Referring to claim 34, according to claim 86:**

Claim 34 is directed to the case of dental features; therefore analysis for claim 34 is not necessary.

**Referring to claim 35, according to claim 3:**

Claim 35 depends on claim 3, which is not addressed since it is directed to first tooth and first dentition, which is not the choice chosen in the analysis of claim 86.

**Referring to claim 36, according to claim 86:**

Hillhouse discloses wherein the first feature has a quality selected from the group consisting of naturally existing, naturally distinct, artificially distinct and artificially constructed (fingerprint is naturally existing).

**Referring to claim 37, according to claim 86:**

Hillhouse discloses wherein the first feature is at least a portion of a relation (See Fig 1A: fingerprint is a portion related to the person).

**Referring to claim 38, according to claim 86:**

Hillhouse discloses wherein the first feature is at least a portion of a pattern (See Fig 1A: fingerprint pattern).

**Referring to claim 39, according to claim 86:**

Claim 39 is directed to a feature of a line, which is an alternative in claim 86.  
Analysis not required.

**Referring to claim 40, according to claim 86:**

Claim 40 is directed to a feature of an intersecting point, which is an alternative in claim 86. Analysis not required.

**Referring to claim 42, according to claim 86:**

Claim 42 is directed to a feature of a length, which is an alternative in claim 86.  
Analysis not required.

**Referring to claim 43, according to claim 86:**

Claim 43 is directed to a feature that is selected from a group consisting of an angle, a surface, a plane and a space, which are all alternatives in claim 86. Analysis not required.

**Referring to claim 44, according to claim 86:**

Claim 44 is directed to a feature that is selected from a group consisting of an angle, a surface, a plane and a space, which are all alternatives in claim 86. Analysis not required.

**Referring to claim 46, according to claim 86:**

Claim 46 is directed to a feature that is at least a portion of a grid, which is an alternative in claim 86. Analysis not required

**Referring to claim 47, according to claim 86:**

Claim 47 is directed to a feature that is at least a portion of a grid, which is an alternative in claim 86. Analysis not required

**Referring to claim 50, according to claim 86:**

Claim 50 is directed to a feature that is at least a portion of a line, a grid or a grid element, which are alternatives in claim 86. Analysis not required

**Referring to claim 51, according to claim 3:**

Claim 51 depends on claim 3, which is not addressed since it is directed to first tooth and first dentition, which is an alternative in claim 86. Analysis not required.

**Referring to claim 52, according to claim 37:**

Claim 52 is directed to a feature that is related to dentition, which is an alternative in claim 86. Analysis not required.

**Referring to claim 53, according to claim 50:**

Claim 53 depends on claim 50, which is not addressed since it is directed to features that are at least a portion of a line, a grid or a grid element, which are alternatives in claim 86. Analysis not required.

**Referring to claim 54, according to claim 46:**

Claim 54 depends on claim 46, which is not addressed since it is directed to features that are at least a portion of a grid, which is an alternative in claim 86. Analysis not required.

**Referring to claim 55, according to claim 46:**

Claim 55 depends on claim 46, which is not addressed since it is directed to features that are at least a portion of a grid, which is an alternative in claim 86. Analysis not required.

**Referring to claim 58, according to claim 38:**

Hillhouse discloses wherein a nature and a type of the first feature can be chosen based on at least one factor selected from the group consisting of a nature of the second member, a preference of an evaluator of the method, a preference of a programmer, a safety requirement of a user of a program, and a safety requirement of a user of the method (fingerprint verification is one of the preferred method of biometric verification).

**Referring to claim 59, according to claim 46:**

Claim 59 depends on claim 46, which is not addressed since it is directed to features that are at least a portion of a grid, which is an alternative in claim 86. Analysis not required.

**Referring to claim 61, according to claim 86:**

Hillhouse discloses wherein a peculiar feature of the first member is selected to be the first feature (Fingerprint can be a peculiar feature; See Fig 1A).

**Referring to claim 62, according to claim 61:**

Hillhouse discloses wherein part of the second information is used in a search program for locating the first data in order to compare the second information with the first data (See Fig 3: perform on—to-many comparison of 1<sup>st</sup> feature set info).

**Referring to claim 68, according to claim 61:**

Claim 68 is directed towards feature extraction using electromagnetic radiation with wavelenghts outside that of light, which are an alternative in claim 86. Fingerprints are primarily obtained using optical and capacitance fingerprint scanners.

**Referring to claim 69, according to claim 3:**

Claim 69 depends on claim 3, which is directed to first tooth and first dentition, which are alternatives in claim 86. Analysis for claim 68 not required.

**Referring to claim 70, according to claim 86:**

The first limitation is directed towards feature extraction using electromagnetic radiation with wavelenghts outside that of light, which are an alternative in claim 86. Fingerprints are primarily obtained using optical and capacitance fingerprint scanners.

Hillhouse discloses wherein the second information is gathered using image acquisition, a camera system, a laser or light in the visible or invisible spectral (See Fig 1A: fingerprint image);

**Referring to claim 71, according to claim 86:**

Hillhouse discloses wherein the first information is gathered and stored in 2D, in 3D or in both 2D and 3D (See Fig 1A: 2D fingerprint sample).

**Referring to claim 73, according to claim 86:**

Hillhouse discloses compressing the first data by compiling the first data and information (See Paragraph [0051]: “plurality of enrollment biometric templates retrievably stored on a local hard drive 35” – compiling a list of biometric samples in the hard drive; See Fig 2).

**Referring to claim 74, according to claim 86:**

Hillhouse discloses gathering personal information or object information from the first member (See Fig 1A: biometric sample is gathered);

Hillhouse discloses storing the personal information or the objection information as personal data or object data, respectively, linked to the first data (See Fig 1A-220: biometric sample is linked to the first feature set info [read as first data]).

**Referring to claim 75, according to claim 86:**

Hillhouse discloses wherein an operator or at least one program selects the first feature (See Paragraph [0033]: “first feature set information is generally comprised of spatially dependent biometric features associated with a fingerprint such as minutia points or ridge spacing frequencies”; See Paragraph [0034] : “first feature set information is used by the at least one biometric processing application [read as program]” – while searching, program has to selectively match minutia points of sample with enrolled minutia points, or ridge spacing frequency of sample with enrolled ridge spacing frequencies).

**Referring to claim 89, according to claim 86:**

Hillhouse discloses wherein the first feature is at least a portion of at least one characteristic selected from the group consisting of an inner structure, an outer structure, a microstructure, and a macrostructure (See Paragraph [0033]: "first feature set information is generally comprised of spatially dependent biometric features associated with a fingerprint such as minutia points or ridge spacing frequencies [read as outer structure]");

Hillhouse discloses wherein the first feature of the second member is physically related to the second member through at least a portion of at least one characteristic selected from the group consisting of a second inner structure, a second outer structure, a second microstructure, and a second macrostructure (See Paragraph [0033]: "second feature set information is generally comprised of pattern dependent biometric features associated with a fingerprint such as minutia types, ridge flow angles etc. [read as second outer structure]").

**Referring to claim 91, according to claim 86:**

See analysis for claim 88. The conventional information and second conventional information for the first and second members, respectively, can be read as third and fourth information in claim 88.

**Referring to claim 9, according to claim 86:**

See analysis for claim 86 and 88.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 76 and 84 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hillhouse as applied to claim 86 above, and further in view of Mori et al (US Publication No 2006/0204053).

**Referring to claim 76, according to claim 86:**



Hillhouse teaches claim 86, but fails to teach a neuronal network. However, Mori discloses a neuronal network (See Paragraph [0005]: “neural network that detects the rotation angle of a face as pre-state of face detection” – neural network can be similarly applied to fingerprint detection).

Based on the combined teachings of Hillhouse and Mori which are in the same field of endeavor, it would have been obvious to incorporate neural network for face/fingerprint recognition to increase the accuracy of recognition.

9. Claim 80 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hillhouse as applied to claim 77 above, and further in view of Mathiassen et al (US Publication No. 2003/0161512).

**Referring to claim 80, according to claim 77:**

Hillhouse discloses claim 77, but fails to teach a U-shaped sensor. However, Mathiassen discloses a U-shape sensor array.

Mathiassen discloses further comprising sensors lying in a U-shaped profile (See Paragraph [0073]: "sensor surface and the sensory array a U Shape being adapted to at least partially enclose the finger surface").

Based on the combined teachings of Hillhouse and Mathiassen which are in the same field of endeavor, it would have been obvious to incorporate a U-shaped sensor for fingerprint recognition in order to at least partially enclose the finger surface.

10. Claims 11, 13-14, 22 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hillhouse as applied to claim 86 above, and further in view of Scott (US Publication No 2002/0053857).

**Referring to claim 11, according to claim 86:**

Hillhouse discloses at least one additional part selected from the group consisting of a receiver, a sensor, a detector and a camera (See 2A: fingerprint scanner [read as sensor]).

Hillhouse does not disclose wherein the first device comprises at least one light transmitter, however Kiyomoto discloses that limitation.

Scott discloses wherein the first device comprises at least one light transmitter (See Paragraph [0008]: “optical finger print scanners” – optical scanners transmit light).

Based on the combined teachings of Hillhouse and Scott, it would have been obvious to use a known technique of optical scanner to yield predictable results.

**Referring to claim 14, according to claim 86:**

Hillhouse discloses gathering of the first information is performed under at least one condition selected from the group consisting of from a perspective, from one side, from more than one perspective, from more than one side (See Fig 2A: fingerprint captured from flat side).

Scott discloses enabling a reconstruction of the first feature in 3D (See Paragraph [0011]: “capturing a fingerprint, form a three-dimensional map of a finger bone”).

**Referring to claim 13, according to claim 86:**

Hillhouse discloses wherein the first information stored as first data in 2D, 3D or both 2D and 3D (See Fig 1A: 2D fingerprint image);

Scott discloses wherein the first data can be generated in 3D (See Paragraph [0011]: “capturing a fingerprint, form a three-dimensional map of a finger bone”).

**Referring to claim 22, according to claim 21:**

Analysis for claim 21 is herein incorporated in the analysis of claim 22. Only further limitations will be addressed.

Scott discloses wherein the first enhancement information and the second enhancement information are about at least one enhancement characteristic selected from the group consisting of color spectral composition, color characteristics, and reflected light (See Paragraph [0008]: “optical finger print scanners” – reflected light is characteristic of optical scanners).

Hillhouse discloses wherein the first enhancement information is gathered upstream from, simultaneously to, or downstream from a first location where the first conventional information is gathered and wherein the second enhancement information is gathered upstream from, simultaneously to, or downstream from a second location where the second conventional information is gathered (See Fig 2A: fingerprint is acquired by swiping hand downstream or upstream relative to the sensor).

**Referring to claim 27, according to claim 86:**

Scott discloses illuminating at least a first area of the first member and a second area of the second member with a light source (See Paragraph [0008]: “optical finger print scanners” – reflected light is characteristic of optical scanners).

Scott discloses wherein the light source has a radiation intensity measuring at least that of daylight at the first location of the first member and at the second location of

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the second member (See Paragraph [0008]: “optical finger print scanners” – reflected light is characteristic of optical scanners; light intensity at least that of daylight).

Scott discloses wherein the radiation intensity for the light source at the first location of the first member and at the second location of the second member measures less than the maximum permissible radiated power that would be damaging to the first feature of the first member and the first feature of the second member and wherein light from the light source is at least one light selected from the group consisting of a light that encompasses a region of invisible light, a light that encompasses a region of visible light, a light that is spectrally limited, a light that is monochromatic, and light that is laser light (See Paragraph [0008]: “optical finger print scanners” – not damaging to fingers, visible light).

11. Claims 31, 87, 88, 24, 45, 94, 30, 32, 63-65, 72, 90 and 97-98 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hillhouse.

**Referring to claim 31, according to claim 87:**

Hillhouse discloses wherein the second information is stored as portable code data in a first portable data storage device (See Fig 1-40: removable [read as portable] data storage unit);

Hillhouse discloses wherein the fourth information is gathered from a second portable data storage device (See Fig 1-50: removable storage unit);

Hillhouse discloses wherein a search program is used to compare the information with data in the database (See Fig 1-5: processor with search program);

Although Hillhouse does not explicitly disclose that different information is stored in different removable storages, it would be obvious to store in separate storages as different data is gathered differently.

**Referring to claim 87:**

Hillhouse discloses gathering first information with a first device about a first feature of at least a portion of at least one first member selected from the group consisting of a first tooth, a first dentition, a first living body, a first dead body, a first person, and a first object (See Paragraph [0033]: "first feature set information is generally comprised of spatially dependent biometric features associated with a fingerprint" - fingerprint is portion of a body);

Hillhouse discloses storing the first information gathered as first data (See Paragraph [0034]: "biometric templates may be accomplished in advance and retrievably stored");

Hillhouse discloses gathering second information from the first member (See Paragraph [0033]: "second feature set information");

Hillhouse discloses storing the second information in a database as code data linked to the first data, said database containing data (See Fig 1-25: storage – second feature set information is derived, and has to be stored at least temporarily while comparing to the sample);

Hillhouse discloses gathering third information using a second device about the first feature of at least a portion of at least one second member selected from the group consisting of a second tooth, a second dentition etc. (See Paragraph [0037]: "second

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information derived from the most relevant enrollment biometric template” [read as second member])

Hillhouse discloses gathering fourth information from the second member (See Paragraph [0035]: “first feature set derived from the plurality of enrollment biometric templates [read as second member]”);

Hillhouse discloses comparing the fourth information with data in the database until a match or an approximate match of the fourth information to the code data is found or until all data in the database has been searched (See Fig 3-310: perform one-to-many comparison of first feature set);

Hillhouse discloses comparing the third information with the first data, if a match or an approximate match of the fourth information and the code data is found, to determine whether the third information matches or approximately matches the first data to determine whether the second member is the first member or is not the first member (See Fig 3: 316-320);

Hillhouse discloses wherein the first feature is at least a portion of at least one characteristics selected from the group consisting of a form, a shape, a template etc. (See Fig 1A-125: fingerprint template);

Hillhouse discloses wherein the first device and the second device are the same device or are different devices (See Fig 2A-95: biometric scanner, which is the same device used to acquire templates for first and second members);

The limitation wherein the first device and the second device work according to the same principle or work according to different principles always holds true.

Although Hillhouse does not explicitly disclose third and fourth information, it would be obvious for one skilled in the art to extract more than two pieces of information in order confirm the identify of a person. Hillhouse discloses using plurality of features (See Fig 1A: first and second feature set) to identify the fingerprint, and each of the set can contain more plurality of information needed to identify the fingerprint.

**Referring to claim 24, according to claim 87:**

Color characteristic is in the alternative in claim 87. Analysis not required.

**Referring to claim 45, according to claim 87:**

Hillhouse discloses wherein the first feature is at least a portion of a pattern (See Fig 1A: fingerprint pattern).

**Referring to claim 88, according to claim 86:**

Hillhouse discloses gathering third information about a second feature of the first member (See Paragraph [0033]: “second feature set information”; See Fig 3-318: derive sample second features set info);

Hillhouse discloses storing the third information as confirmation data (See Paragraph [0034]: “biometric templates may be accomplished in advance and retrievably stored”; See Fig 1-25: storage – second feature set information is derived, and has to be stored at least temporarily while comparing to the sample);

Hillhouse discloses gathering fourth information about the second feature of the second member (See Paragraph [0037]: “second information derived from the most relevant enrollment biometric template” [read as second member]);

Hillhouse discloses comparing the fourth information to the confirmation data to determine whether the fourth information matches or approximately matches the confirmation data to confirm that the second member is the first member or is not the first member (See Fig 3-320: perform one-to-one matching of 2nd feature set info of sample [first member] and enrollment template [second member]);

Hillhouse discloses wherein the second feature is at least a portion of at least one characteristics selected from the group consisting of a form, a shape, a template etc. (See Fig 1A-125: fingerprint template).

Although Hillhouse does not explicitly disclose third and fourth information, it would be obvious for one skilled in the art to extract more than two pieces of information in order confirm the identify of a person. Hillhouse discloses using plurality of features (See Fig 1A: first and second feature set) to identify the fingerprint, and each of the set can contain more plurality of information needed to identify the fingerprint.

**Referring to claim 94, according to claim 88:**

Hillhouse discloses wherein the second feature is at least one second portion of a second relation (See Fig 1A: 2<sup>nd</sup> feature set).

**Referring to claim 30, according to claim 87:**

Hillhouse discloses wherein the information is about the conventionally authenticated feature (See Fig 1A).

**Referring to claim 32, according to claim 87:**

Hillhouse discloses wherein the fourth information is about the second feature (See Fig 1A - fingerprint features).



Hillhouse discloses wherein the second feature is at least a template (See Fig 1A-125: fingerprint template);

**Referring to claim 63, according to claim 31:**

Hillhouse discloses wherein the portable code data is stored in pictural form in the first portable storage device (See Fig 1A: fingerprint);

Hillhouse discloses wherein the information is gathered from a second pictural device form from the second portable data storage (See Fig 1-50 - second portable storage).

**Referring to claim 64, according to claim 31:**

Hillhouse discloses wherein the second information is stored on the first portable data storage device as at least one image, as at least one structure, or as both an image and a structure (See fig 1-40: first storage device; Fig 1A: fingerprint image; See Fig 1A-210': second feature set).

Hillhouse discloses wherein the fourth information is gathered from the second data storage device from at least one second image, from at least one second structure or from at least one second image (See Fig 1-50: second storage device).

Although Hillhouse does not explicitly disclose fourth information, it would be obvious for one with ordinary skill in the art to have more than one information obtained from more than one device to perform identification and verification thereby improving the results of identification.

**Referring to claim 65, according to claim 64:**

Hillhouse discloses wherein the fourth information is gathered from the second portable data storage device using a third device (See Fig 1-50: second storage).

Although Hillhouse does not explicitly disclose fourth information and a third device, it would be obvious for one with ordinary skill in the art to have more than one information obtained from more than one device to perform identification and verification thereby improving the results of identification.

**Referring to claim 72, according to claim 64:**

See analysis for claim 87.

**Referring to claim 90, according to claim 28:**

Hillhouse discloses automatically updating the first data with any newly acquired data that lies within the tolerance range (See Paragraph [0061]: “if the most favorable comparison is successful within the acceptable tolerance range, identified biometric template undergoes further processing” – read as updating).

**Referring to claim 97, according to claim 86:**

See analysis for claim 87.

**Referring to claim 98, according to claim 87:**

See analysis for claim 87.

12. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hillhouse as applied to claim 86 above, and further in view of Murase et al (US Publication No. 2002/0046347).

**Referring to claim 33, according to claim 86:**

Hillhouse does not disclose wherein the first device and the second device are part of a toll system, however Murase discloses that.

Murase discloses wherein the first device and the second device are part of a toll system, however Murase discloses that (See Paragraph [0042]: “toll facility...face picture, a fingerprint etc. are recorded onto the ticket”).

Based on the combined teachings of Hillhouse and Murase, it would have been obvious to use a known method of implementing a fingerprint security at toll systems to yield predictable results.

13. Claim 96 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hillhouse as applied to claim 28 above, and further in view of Takahashi (US Patent No. 7,412,083).

**Referring to claim 96, according to claim 28:**

Hillhouse discloses claim 28, but fails to teach gathering new data at repeated specified time intervals and automatically updating the first data with any new data that lies within the tolerance range, however Takahashi discloses that limitation.

Takahashi discloses teach gathering new data at repeated specified time intervals and automatically updating the first data with any new data (See Col 7 Lines 1-10: “preset a presumed time interval when the partial feature extraction region can be formed and pass into the fingerprint feature extraction process periodically at that time intervals”).

Based on the combined teachings of Hillhouse and Takahashi, it would have been obvious to incorporate a known technique yielding predictable results.

### ***Conclusion***

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AVINASH YENTRAPATI whose telephone number is (571)270-7982. The examiner can normally be reached on Monday through Thursday, 7:30am - 5pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yubin Hung can be reached on 5712727451. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/AVINASH YENTRAPATI/  
Examiner, Art Unit 2624

/Yubin Hung/  
Primary Examiner, Art Unit 2624

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